

ABSTRACT

A method for measuring an evolution rate of a gas from a sample includes equilibrating a sample with an alkaline solution and a pH indicator and permitting the alkaline solution to absorb formed carbon dioxide in an enclosed headspace. From the pH indicator at equilibrium is determined a time increment at which an increment of the alkaline solution is consumed by the CO₂. Carbon dioxide evolution rate is calculated from the time increment, the volume increment, and the alkaline solution concentration. A device for performing this measurement includes a sample vial and a reaction chamber having an opening adapted for mating with a sample vial opening and an opening for receiving the solution. The reaction chamber is dimensioned for equilibrating the sample with the alkaline solution and for determining the time increment required for an increment of the alkaline solution to be consumed by CO₂.